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09/871,539	05/31/2001	Akihiro Tada	70181	8903

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EXAMINER
DOTE, JANIS L

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1756	14

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/871,539	Applicant(s) TADA et al
	Examiner J. DOTE	Group Art Unit 1756

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ Responsive to communication(s) filed on 5/16/03; 1/13/03; 1/7/03.

☒ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 7-21, 26-55 is/are pending in the application.

Of the above claim(s) 7-21, 38-40, 53-55 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 26-37, 41-52 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☒ All ☐ Some* ☐ None of the:

☒ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____.

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____.

Attachment(s)

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 9 & 10

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Interview Summary, PTO-413

☐ Notice of Informal Patent Application, PTO-152

☐ Other _____

Office Action Summary

1. The examiner acknowledges the cancellation of claims 1-6 and 22-25, and the addition of claims 26-55 filed in Paper No. 11 on May 16, 2003. Claims 7-21 and 26-55 are pending.

2. Claims 7-21 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention. The election in Paper No. 7 filed Oct. 10, 2002, has been treated as an election made **without** traverse.

3. The elected species set forth in Paper No. 7 has been acknowledged, wherein the elected species is a toner comprising the chromium monoazo compound disclosed in example 1 of the instant specification.

Claims 38-40 and 53-55 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b) as being drawn to a non-elected species. The election of species in Paper No. 7 has been treated as an election made without traverse.

3. The references listed on the form PTO-1449 filed in Paper No. 9 on Jan. 7, 2003, in Paper No. 9, have been crossed-out by the examiner because applicants filed a corrected form PTO-1449 filed in Paper No. 10 on Jan 13, 2003, replacing the form PTO-1449 filed in Paper No. 9.

The references entitled "OECD Guidelines for Testing of Chemicals" and "Skin Sensitization, Section B6," listed on the form PTO-1449 filed in Paper No. 10, have been crossed-out by the examiner because those references were previously listed on the form PTO-1449 filed in Paper No. 2 on Jun. 22, 2001, and have been considered by the examiner. See the copy of the form PTO-1449 filed in Paper No. 2, initialed by the examiner and attached to the office action mailed on Dec. 17, 2002, Paper No. 8.

4. The rejections under 35 U.S.C. 102(e)/103(a) of claims 1-6 and 22-24 under 35 U.S.C. 102(e)/103(a) over US 6,426,169 B1 (Onuma) or over US 2001/004667 (Okubo), set forth in Paper No. 8, paragraphs 8 and 9, respectively, have been withdrawn because neither Onuma nor Okubo is prior art. Applicants have perfected their claim to foreign priority under 35 U.S.C. 119. The verified English-language translation of the priority document, Japanese patent application No. 2000-163222, filed on May 16, 2003, attached to Paper No. 13, provides an adequate written description under 35 U.S.C. 112, first paragraph, for the subject matter now recited in instant claims 26-37 and 41-52.

5. In light of the disclosure in the instant specification, the examiner interprets the limitation "incidence of skin

sensitization in a skin sensitization potential test, based on the maximization method . . . being not more than 20%" recited in the instant claims to mean the ratio (i.e., percentage) of test samples having skin reactions or sensitization when exposed to the test compound in a set number of test samples. The instant specification discloses that, in the sensitization potential test based on the maximum method, the "rating results are expressed as the ratio of guinea pigs with signs of skin sensitization by the test compound." See the instant specification, page 9, lines 3-15. Applicants concurred with the examiner's interpretation. See Paper No. 11, page 25, lines 5-9.

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 26, 27, 29, 30, 32, 33, 35, 36, 41, 42, 44, 45, 47, 48, 50, and 51 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 6,120,958 (Ookubo).

Ookubo exemplifies a toner comprising a binder resin, the coloring agent carbon black, and the iron monoazo compound (C). See example 1 at cols. 13-14. The iron monoazo compound is within the compositional limitations of formula (1) recited in

instant claims 27, 30, 33, 36, 42, 45, 48, and 51. Col. 3, lines 5-20, and col. 13, lines 9-45.

Ookubo does not disclose that its iron monoazo compound has the incidence of skin sensitization or the purity recited in the instant claims. However, Ookubo discloses that after the sodium salt of iron monoazo compound is made, it is filtered. The compound is then dispersed in a solution comprising water, ethyl alcohol, and ammonium sulfate. The mixture is stirred at a temperature of from 75 to 80°C for 4 hours to carry out counterion exchange. The obtained product is collected by filtration and washed with water and dried under reduced pressure at from 50 to 60°C. Col. 13, lines 30-39. According to Ookubo, a toner comprising its iron monoazo compound (C) can be "electrified to a proper level instantaneously, whereby the triboelectric performance will not deteriorate even when it is left to stand for a long period of time." Col. 2, lines 2-5. For example, in example 1, the toner comprising Ookubo's iron monoazo compound (C) has an initial blow-off charge of -21.5 μC/g and a charge after 3 hours of -25.3 μC/g. See example 1.

The instant specification discloses that the claimed monoazo metal complex having the incidence of skin sensitization or the purity recited in the instant claims can be obtained "by removing impurity substances other than monoazo metal complex compounds using an alcoholic organic solvent." The specification discloses

that the impurities can be removed by the steps: "the monoazo metal complex is dispersed in the alcoholic organic solvent; the resulting dispersion is stirred under heating and filtered, after which the cake filtered out is dried under reduced pressure." Specification, page 9, line 22, to page 10, line 3. According to the instant specification, a toner comprising its monoazo metal complex as a charge control agent "possesses a practically satisfactory charge characteristic, is sharp in charge amount distribution, high in charge amount uniformity, excellent in charge rise profile, low in environmental dependency, excellent in durability in multiple repeated use, and good in fixability and offset quality." See the instant specification, page 6, lines 11-14. The specification exemplifies a toner comprising a monoazo chromium complex having a 10% incidence of skin sensitization and a purity of 94.2%. According to the specification, "when the toner was used to repeatedly form images, the charge rise profile, charge stability and sustainability were good, the image density was stable from the initial time to completion of continuous copying, and high quality images with no fogging etc. were obtained." See the specification, page 32, lines 8-12.

Accordingly, because Ookubo's iron monoazo compound is processed by a method similar to that disclosed in the instant specification and provides toners that appear to have the same or

similar properties as sought by applicants, it is reasonable to conclude that Ookubo's iron monoazo compound has the incidence of skin sensitization and purity recited in the instant claims. The burden is on applicants to prove otherwise. In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

8. Claims 26-37 and 41-52 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 5,843,611 (Sukata).

Sukata exemplifies a toner comprising a binder resin, the coloring agent carbon black, and a monoazo chromium composition as the charge control agent. See example C at col. 19. The monoazo chromium composition comprises a 6:4 chromium monoazo compound, a 3:2 chromium monoazo compound, and a 2:1 chromium monoazo compound. The 2:1 chromium monoazo compound is within the compositional limitations of formula (1) recited in instant claims 28, 31, 34, 37, 43, 46, 49, and 52. See Sukata, example 5 at col. 18.

Sukata does not disclose that its monoazo metal compounds have the incidence of skin sensitization or the purity recited in the instant claims. However, Sukata discloses that after the monoazo metal compounds are made, they are filtered and washed with water and dried. The compounds are then washed with methanol using a Soxhlet extractor and dried. See example 5.

Sukata's toner comprising its chromium monoazo compounds has excellent chargeability, environmental resistance, storage stability, and durability. Said toner provides high quality toner images free of density reduction and fogging for many repeated cycles. Col. 6, lines 2-7, and example C. For example, in example C, according to Sukata, when the toner is used for repeated cycles of imaging, "high quality images free of density reduction and fogging were obtained, with good charge stability and sustainability. The offset phenomenon was not noted." Col. 19, lines 48-51.

The instant specification discloses that the claimed monoazo metal complex having the incidence of skin sensitization or the purity recited in the instant claims can be obtained "by removing impurity substances other than monoazo metal complex compounds using an alcoholic organic solvent." According to the instant specification, a toner comprising its monoazo metal complex as a charge control agent has "practically satisfactory charge characteristic, is sharp in charge amount distribution, high in charge amount uniformity, excellent in charge rise profile, low in environmental dependency, excellent in durability in multiple repeated use . . .". The discussion of the instant specification in paragraph 7 above is incorporated herein by reference.

Accordingly, because Sukata's chromium monoazo compounds are processed by a method similar to that disclosed in the

instant specification and provide toners that appear to have the same or similar properties as sought by applicants, it is reasonable to conclude that Sukata's chromium monoazo compounds have the incidence of skin sensitization and purity recited in the instant claims. The burden is on applicants to prove otherwise. Fitzgerald, supra.

9. Applicants' arguments filed in Paper No. 11 with respect to the rejections set forth in paragraphs 7 and 8, supra, have been fully considered but they are not persuasive.

(1) Applicants assert that "it cannot reasonably be presumed that . . . the desired purified product of the present invention is the same as or is taught" by the prior art, because there is no indication in Ookubo of any significance of skin sensitization or purity as recited in the instant claims. Applicants further assert that even if the instantly claimed monoazo metal complex compounds were shown to have similar charge control properties to the prior art compounds, "this would not mean that such reference compounds would perforce be presumed to possess the same (or similar) skin sensitization incidence and purity characteristics to those of instant compounds." Applicants also assert that "it is impermissible for the Examiner to hold tacitly that the inherent features and advantages of the invention . . . are relevant to obviousness and somehow

demonstrate that the invention is obvious." Applicants allege that because Ookubo's monoazo iron compound in Ookubo's preparation example 1 is prepared with solutions comprising water in amounts of 3 or 6 times the amount of alcoholic organic solvent, Ookubo's monoazo iron compound includes a "large porion of impurities." Applicants assert that "no meaningful comparison with the instant invention is possible" between the monoazo iron compound in Ookubo's preparation example 1, because the amount of sodium salt paste recovered and used to form the ammonium iron complex is not disclosed in Ookubo. Applicants further allege that the level of impurities is "believed to be about the same level as that of Composition D" in the Rule 132 declaration, executed by Akihiro Tada on Apr. 2, 2003, filed in Paper No. 12 on May 16, 2003.

However, as discussed in paragraph 7, Ookubo processes its monoazo iron compound in a method similar to that disclosed in the instant specification to remove impurities and provides toners that appear to have the same or similar properties sought by applicants, namely providing toners with stable charging characteristics. As discussed in paragraph 7, the instant specification discloses that its monoazo metal complex having the incidence of skin sensitization or the purity recited in the instant claims can be obtained "by removing impurity substances other than monoazo metal complex compounds using an alcoholic

organic solvent." The instant specification does not exclude Ookubo's aqueous mixtures comprising the alcoholic organic solvent. The instant specification also discloses that monoazo metal compounds having the purity and the incidence of skin sensitization have stable charging characteristics. Furthermore, the examiner did not suggest that the inherent features and advantages of the instant invention were obvious. Rather, the examiner cited the disclosure in the instant specification to show that the compounds having the incidence of skin sensitization and purity recited in the instant claims also possessed other properties. The rejection set forth in paragraph 7 above is under the hybrid basis 35 U.S.C. 102/103(a). This "hybrid" form of rejection has been approved by the Federal Circuit. See In re Spada, 15 USPQ2d 1655, 1657, n.2 (Fed. Cir. 1990). Thus, for the reasons discussed above and in paragraph 7, the examiner has presented a reasonable evidentiary basis in support of the presumption that the monoazo iron compound in Ookubo's preparation example 1 has the incidence of skin sensitization and purity recited in the instant claims.

Furthermore, applicants have not come forward with any factual evidence in support of their allegation that Ookubo's monoazo iron compound in Ookubo's preparation example 1 has a large amount of impurities, and therefore, does not have the (relatively low) incidence of skin sensitization recited in the

instant claims. Nor have applicants presented any factual evidence to show that Ookubo's monoazo iron compound does not have the purity recited in instant claims 41, 44, 47, and 50. Applicants' assertion that "no meaningful comparison with the instant invention is possible," because the amount of sodium salt paste recovered and used is unknown is mere attorney argument, and therefore without merit. Moreover, in Ookubo's preparation example 1, the "obtained [sodium salt] paste" is used to form the ammonium monoazo iron complex of formula C, and that the ammonium monoazo iron complex collected is filtrated and washed with water and dried under reduced pressure at from 50 to 60°C. Thus, the amount of sodium salt paste used to form the ammonium iron complex is irrelevant, because it appears that Ookubo uses all of the obtained sodium salt paste to form its ammonium monoazo iron complex. In addition, the showing in the Rule 132 declaration is insufficient to show that Ookubo's monoazo iron compound in Ookubo's preparation example 1 does not have a purity as recited in instant clams 41, 44, 47, and 50, because it does not compare to Ookubo. Compound D in the declaration is not representative of the monoazo iron compound in Ookubo's preparation example 1. Compound D is a monoazo chromium compound. The instant claims do not exclude Ookubo's monoazo iron compound. Moreover, compound D is not prepared in the same manner as disclosed in Ookubo's preparation example 1. See Ookubo's preparation example 1.

Thus, compound D is not a probative comparison to Ookubo. Accordingly, applicants have not met their burden to show that the monoazo iron compound in Ookubo's preparation example 1 does not possess the incidence of skin sensitization or the purity recited in the instant claims. Accordingly, the rejection set forth in paragraph 7 stands.

(2) Applicants argue that "it cannot reasonably be presumed that . . . the desired purified product of the present invention is the same as or is taught" by Sukata, because there is no indication in Sukata of any significance of skin sensitization or purity as recited in the instant claims. Applicants assert that "no meaningful comparison with the instant invention is possible" between the monoazo chromium composition in Sukata's example 5, because Sukata does not indicate the Soxhlet extractor treatment conditions, such as operating time, temperature, flow rates, and proportions of attendant ingredients, etc. Applicants also assert that because Sukata's example 5 contains only a small amount of the 2:1 monoazo metal compound, "it can be hardly be said that the skin sensitization incidence of such 2:1 monoazo metal compound is not more than 20%, or that its purity is not less than 90% in the manner of the present invention."

However, instant independent claims 26, 29, 32, 35, 41, 44, 47, and 50 do not limit the monoazo metal compound to be a 2:1 monoazo metal compound. Nor do dependent claims 28, 31, 34, 37,

43, 46, 49, and 52 limit the amount of 2:1 monoazo metal compound present in the monoazo metal compound containing composition. As discussed in paragraph 8 above, the monoazo chromium composition in Sukata's example 5 comprises a 2:1 monoazo chromium compound. As discussed in paragraph 8, Sukata processes its monoazo chromium compounds in a method similar to that disclosed in the instant specification to remove impurities and provides toners that appear to have the same or similar properties sought by applicants, namely toners that have stable charging characteristics and that provide stable images after repeated use. As discussed in paragraph 8, the instant specification discloses that its monoazo metal complex having the incidence of skin sensitization or the purity recited in the instant claims can be obtained "by removing impurity substances other than monoazo metal complex compounds using an alcoholic organic solvent." The instant specification also discloses that monoazo metal compounds having the purity and the incidence of skin sensitization have stable charging characteristics. The examiner cited the disclosure in the instant specification to show that the compounds having the incidence of skin sensitization and purity recited in the instant claims also possessed other properties. The rejection set forth in paragraph 8 above is under the hybrid basis 35 U.S.C. 102/103(a). See Spada, supra. As discussed in paragraph 8, Sukata washes the

monoazo chromium compounds in Sukata's example 5 with methanol in a Soxhlet extractor. Applicants' assertion that "no meaningful comparison with the instant invention is possible" because Sukata does not disclose the conditions of the Soxhlet extraction with methanol in its example 5 is mere attorney argument, and is without merit. Furthermore, the instant specification does not teach the conditions of removing impurities from a monoazo metal complex by Soxhlet extraction with an alcoholic solvent. See the instant specification, page 10, lines 4-9. Moreover, the examiner notes that one of the inventors, Tohru Tsuruhara, listed in Sukata, appears also to be an inventor of the instant invention. Thus, it would appear that applicants know the conditions of the Soxhlet extraction with methanol in Sukata's example 5. Applicants have the burden to show that the monoazo chromium composition in Sukata's example 5 does not possess the instantly recited properties because they are clearly in the better position to distinguish Sukata. In addition, the specification at page 10, lines 16-17, discloses that a monoazo metal compound of the present invention can be obtained by using an alcoholic organic solvent in synthesizing the compound. As noted by applicants in Paper No. 11, in the paragraph bridging pages 36 and 37, Sukata's example 5 also reports synthesis of the monoazo chromium compounds in a mixture of ethyl cellosolve and ethylene glycol. Ethyl cellosolve is ethylene glycol monoethyl

ether. See Grant & Hackh's Chemical Dictionary, page 121. Both ethyl cellosolve and ethylene glycol are identified by the instant specification as alcoholic organic solvents. See the instant specification, page 11, lines 13-14. Thus, for the reasons discussed above and in paragraph 8, the examiner has presented a reasonable evidentiary basis in support of the presumption that the monoazo chromium composition in Sukata's example 5 has the incidence of skin sensitization and purity recited in the instant claims.

Furthermore, applicants have not come forward with any factual evidence in support of their allegation that the monoazo chromium compounds in Sukata's example 5 do not have the incidence of skin sensitization recited in the instant claims. Nor have applicants presented any factual evidence to show that Sukata's monoazo chromium compounds do not have the purity recited in instant claims 41, 44, 47, and 50. The showing in the Rule 132 declaration is insufficient to show that Sukata's monoazo chromium compounds do not have a purity as recited in instant clams 41, 44, 47, and 50, because it does not compare to Sukata. Comparative compounds A, C, and D are not representative of the monoazo chromium composition in Sukata's example 5. As discussed in paragraph 8, Sukata's monoazo chromium composition comprises a 6:4 chromium monoazo compound, a 3:2 chromium monoazo compound, and a 2:1 chromium monoazo compound. The instant

claimed "monoazo metal complex compound containing composition" does not exclude Sukata's 6:4 and 3:2 chromium monoazo compounds. In addition, compounds A, C, and D are not prepared in the same manner as disclosed in Sukata's example 5. See Sukata's example 5. Accordingly, applicants have not met their burden to show that the chromium monoazo compounds in Sukata's example 5 do not possess the incidence of skin sensitization or the purity recited in the instant claims. Accordingly, the rejection set forth in paragraph 8 stands.

(Applicants' comments regarding examples 1 through 4 in Sukata are not pertinent to the rejection set forth in paragraph 8, because the rejection is based on the chromium monoazo composition in Sukata's example 5.)

10. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing

date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (703) 308-3625. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (703) 308-2464. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9311 (Rightfax) for after final faxes, and (703) 872-9310 for other official faxes.

Any inquiry of papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Palestine Jenkins, whose telephone number is (703) 308-3521.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Janis L. Dote
JANIS L. DOTE
PRIMARY EXAMINER
GROUP 1500
1700

JLD
August 6, 2003